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EXAMINER

AVELLINO, JOSEPH E

ART UNIT PAPER NUMBER

2143

DATE MAILED: 12/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/986,801

Applicant(s)

CRAIK, RON

Examiner

Joseph E. Avellino

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/19/03, 05/27/03, 02/06/02</u> | 6) <input checked="" type="checkbox"/> Other: <u>IDS 02/06/02</u>                       |

**DETAILED ACTION**

1. Claims 1-20 are presented for examination; claims 1 and 10 independent.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 9-16, 18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Thompson (USPN 6,529,620).

3. Referring to independent claims 1 and 10 (e.g. exemplary claim 10), Thompson discloses a method of storing and retrieving inspection and maintenance information (e.g. abstract) regarding an equipment unit (i.e. aircraft, Figure 2), said method comprising the steps of:

- a. providing a memory button (i.e. computer readable medium), said memory button being adapted to permit electronic storage of data therein (col. 6, lines 29-40), and to permit reading of data 22a (Figure 1) stored therein (col. 5, lines 4-27);

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- b. installing said memory button on or in the equipment unit in convenient proximity to a selected inspection and maintenance point (Figure 2, ref. 55; col. 6, lines 10-28);
- c. providing a memory button probe 55 (Figure 2) adapted for transferring data to, and reading data stored in, the memory button (col. 5, lines 4-35; col. 6, lines 29-55).
- d. providing a portable computing device having a memory (e.g. maintenance apparatus 20) and having a first data transfer link 54 (Figure 2) whereby said portable computing device is in electronic communication with the memory button probe (col. 6, lines 41-55);
- e. providing, at a location remote from the equipment unit, a central computer 57 (Figure 2) having a database, said central computer having a second data transfer link 56 (Figure 2) whereby the central computer is in electronic communication with the portable computing device (col. 7, lines 1-15);
- f. as desired, storing technical information relating to the equipment unit in the database (col. 6, lines 29-40);
- g. as desired, storing technical information relating to the equipment in the memory button (col. 6, lines 29-40);
- h. as desired, engaging the memory button probe with the memory button so as to read selected data stored therein, and to transmit said selected data via said first data transfer link to the portable computing device (col. 5, lines 4-35; col. 6, lines 29-55);

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- i. as desired, transmitting a signal from the portable computing device to the central computer via said second transfer link, instructing the central computer transmit selected data from the database to the portable computing device via the second transfer link (col. 7, lines 1-15);
  - j. performing an inspection or maintenance task on the equipment unit (i.e. aircraft) (col. 6, lines 29-40);
  - k. entering task performance (e.g. recording additional data, notes, condition of engine, serial number, etc.) information into the portable computing device relation to the performance of said inspection or maintenance task (col. 6, lines 56-67);
  - l. electronically transmitting a signal, corresponding to said task performance information, from the portable computing device to the memory button via said first link and the memory probe, so as to store performance information on the memory button (col. 6, lines 29-40).
  - m. electronically transmitting a signal, corresponding to said task performance information, from the portable computing device to the central computer via said link, so as to store performance information on the database (col. 6, lines 29-40).
4. Referring to claim 11, Thompson discloses the portable computing device is a PDA (Figure 5; ref. 20; col. 7, lines 39-41).

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5. Referring to claim 12, Thompson discloses the portable computing device is a laptop computer (col. 7, lines 42-60).

6. Referring to claim 13 and 14, Thompson discloses the second link is a wireless data transfer link through a computer network (col. 7, lines 1-15; col. 8, lines 57-65).

7. Referring to claim 15, Thompson discloses the transfer link is a connection through a satellite system (col. 8, lines 57-65).

8. Referring to claim 16, Thompson discloses the central computer is a computer network server (the Office takes the term "network server" as "a computer which responds to a client's transactions") (e.g. abstract; col. 6, lines 29-40; col. 7, lines 1-16).

9. Referring to claim 18, Thompson discloses accessing the database from a user computer (e.g. the apparatus) via connection to a computer network (col. 8, lines 57-67).

10. Referring to claim 20, Thompson discloses the equipment unit is an aircraft (e.g. abstract; Figure 2).

11. Claims 1-7 and 9 are rejected for similar reasons as stated above.

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***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson.

13. Referring to claims 8 and 17 (e.g. exemplary claim 8), Thompson discloses the invention substantively as described in claim 1. Thompson does not specifically state that the computer network server is protected by a firewall. "Official Notice" is taken that both the concept and advantages of providing for a firewall to protect a server is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to provide for a firewall to the system of Thompson in order to provide a level of security to ensure sensitive data does not reach those who wish to do malicious harm (i.e. viruses, Trojan horses, etc.).

14. Referring to claim 19, Thompson discloses the invention substantively as described in claim 18. Thompson does not specifically disclose downloading data to a user computer and storing a backup copy of the data on the user computer. "Official Notice" is taken that both the concept and advantages of providing for storing a backup

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copy of data on a user computer from a database is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to provide for storing a backup copy of data on a user computer from a database to efficiently ensure the data is protected thereby to enhance the security of the data the comprises the maintenance information as supported by Thompson (col. 6, lines 29-40).

### ***Claim Rejections - 35 USC § 102***

Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Yacomb (USPN 6,170,742).

15. Referring to independent claims 1 and 10, (e.g. exemplary claim 1), Yacomb discloses a system of accessing and storing inspection and maintenance information of an equipment unit (e.g. abstract) regarding the steps of:

regarding step a, providing a memory button (i.e. "smart card"), see abstract and col. 22, lines 44-55;

regarding step b, providing a memory button probe (e.g. smart card interface), see Figure 27 ref. 4006, and col. 22, lines 56-67;

regarding step c, portable computing device having memory, see col. 22, lines 15-67;

regarding step d, first data transfer link see col. 22, lines 56-67;



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regarding step e, providing a central computer, see Figure 27, ref. 4005; col. 23, lines 1-7;

regarding step f, second xfer link, see Figure 27, ref. 4003.

16. Regarding claim 2, PDA, see col. 22, lines 60-65.
17. Regarding claim 3, computer network, this is an inherent feature of the system.
18. Regarding claim 4, wireless link, see Figure 27, ref. 4003.
19. Regarding claims 5-9, these are all inherent features of the system.
20. Claims 10-20 are rejected for similar reasons as stated above.

***Claim Rejections - 35 USC § 103***

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fieramosca et al. (USPN 5,950,149) (hereinafter Fieramosca) in view of Flicker, Jr. et al. (USPN 6,101,433) (cited by Applicant in IDS) (hereinafter Flicker).

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21. Regarding independent claims 1 and 10 (exemplary claim 1), Fieramosca discloses system of accessing and storing inspection and maintenance information of an equipment unit (e.g. abstract) regarding the steps of:

regarding step c, portable computing device, see Fieramosca Fig. 1, ref. 18;

regarding step d, first data xfer link, see Fieramosca Fig 1. ref. 88;

regarding step e, central computer, see Fieramosca Fig. 1, ref. 84;

regarding step f. second xfer link, see Fieramosca Fig 1. ref. 86;

Fieramosca does not specifically state comprising a memory button and a memory button probe. In analogous art, Flicker discloses another system of accessing and storing inspection and maintenance information which includes memory buttons on equipment (e.g. abstract; Figure 1, ref. 100) and a memory button probe adapted to transfer data to and reading data stored in the memory buttons (it is inherent that the data is able to be written into the memory button, otherwise the information would never get there) (e.g. abstract). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Flicker with Fieramosca in order to efficiently store more information on the vehicle (in memory) rather than the limited information storage using the bar code system of Fieramosca, which is subject to optical interference that corrupts the data being transferred as supported by Flicker (col. 2, lines 22-29).

22. Regarding claims 2-9, they are all inherent features of the system.

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23. Claims 10-20 are rejected for similar reasons as stated above.

***Conclusion***

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

25. Schmidt et al. (USPN 6,122,575) discloses APU troubleshooting system.

26. Larson et al. (USPN 6,556,904) discloses updating and acquisition of automotive vehicle specifications.

27. Larson et al. (USPN 6,370,455) discloses networked wheel alignment communications.

28. Arjomand (USPN 5,884,202) discloses modular wireless diagnostic test and information system.

29. Ying (USPN 6,757,521) discloses locating and assisting portable devices performing remote diagnostics.

30. Barker et al. (USPN 6,314,422) discloses softlinking between documents in a vehicle diagnostic system.

31. Provisional Application no. 60/23913 (Thompson, R), Filed September 11, 2000.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JEA  
December 7, 2004

William C. Vaughn  
Primary Examiner  
Art Unit 2143  
William C. Vaughn, Jr.